

# METHOD FOR REDUCED N+ DIFFUSION IN STRAINED SI ON SiGe SUBSTRATE

## Abstract

The first source and drain regions are formed in an upper surface of a SiGe substrate. The first source and drain regions containing an N type impurity. Vacancy concentration in the first source and drain regions are reduced in order to reduce diffusion of the N type impurity contained in the first source and drain regions. The vacancy concentration is reduced by an interstitial element or a vacancy-trapping element in the first source and drain regions. The interstitial element or the vacancy-trapping element is provided by ion-implantation.